Date Received 6-1-83

MECK COUNTY DEPARTMENT OF
RECEIVED
JUN . 1983
ENVIRONMENTAL HEALTH

SIR No. 19717
T.C. No. 02705201
Map Date

|| INTERESTED PARTY: ||
JOHN M. FRYE
512 W. CHESTNUT ST. EXT.
STANLEY NC 28164

Copy

MECKLENBURG COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH

APPLICATION FOR SOIL INVESTIGATION

1) NAME OF OWNER Frye (LAST) Margaret (FIRST) Johnston (MIDDLE)

2) ADDRESS OF OWNER 1400 Lyon Ct. Charlotte, NC ZIP 28205

3) PHONE NO. Home 334-5634 Office N/A

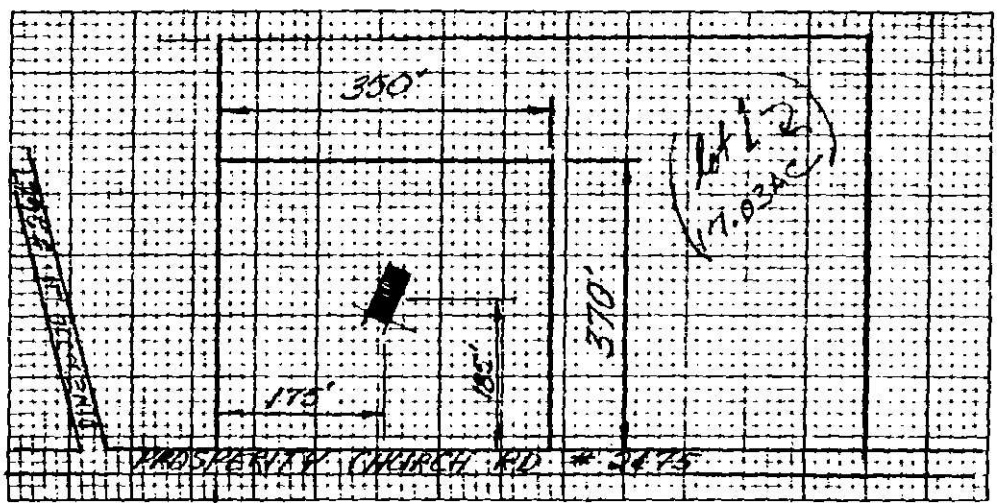
4) LOCATION OF PROPERTY 3231 Prosperity Church Rd (STREET OR COUNTY ROAD) Co. Rte. # 2475

5) SUBDIVISION _____ LOT NO. _____ BLOCK NO. _____

MAP BOOK NO 27 PAGE NO. 05

6) DEED REFERENCE DEED BOOK 2247/2595 PAGE NO. 602/172

Application is hereby made to the Mecklenburg County Department of Environmental Health for the conduct of a soil investigation and an on site inspection of the lot hereinabove described for the purpose of determining if the lot is suitable for the installation of an individual septic tank wastewater treatment system with subsurface, soil absorption, effluent discharge.



7) ACCURATELY DIAGRAM & DIMENSION LOT

Margaret J. Frye
OWNER

END-5-76

Environmental Health Department's Copy

MECKLENBURG COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH
1200 BLYTHE BOULEVARD
CHARLOTTE, NORTH CAROLINA 28203

SIR. NO. 19717
T.C. NO. PO 027-052-01
DATE: 6-10-83

Ms. Margaret J. Frye
1400 Lyon Court
Charlotte, NC 28205

RE: Property located at 3231 Prosperity Church Road

Dear Ms. Frye:

At your request, a field investigation was conducted on the property designated above and was classified unsuitable for the installation of a ground absorption sewage disposal system. A copy of the site evaluation report is enclosed for your information.

Sites classified as unsuitable may be utilized for soil absorption disposal systems provided engineering, hydrogeologic, soil and environmental studies indicate that a suitable septic tank system or a suitable alternate system can be reasonably expected to function satisfactorily.

Should you desire to file for permission to install an alternate system, please submit your proposals, in the form of plans and specifications, to this office. They will be reviewed and if it is found that the system may be reasonably expected to function satisfactorily, approval will be given upon the execution by you of "Septic Tank Agreement Form" provided by this office.

If I may be assistance, please feel free to call.

Sincerely,

Bill D. Hardister, Jr.

Bill D. Hardister, Jr.
Environmental Health Supervisor

BDH/kbg

Enclosure

DEPARTMENT OF ENVIRONMENTAL HEALTH
MECKLENBURG COUNTY, NORTH CAROLINA

SITE EVALUATION

S.I.R. NO. 19717

T.C. NO. R0022-052-01

(Ground Absorption Sewage Disposal)

OWNER: Margaret J. Frye
ADDRESS: 1480 Lyon Ct. Charlotte, N.C. 28205
PLAT NO:
LOT SIZE: 23,000
LOCATION OF SITE: Prosperity Church Road

FACTORS	AREA 1	AREA 2	AREA 3	AREA 4
1. SLOPE (%)	(S) PS U 2-8%	S PS U	S PS U	S PS U
2. SOIL TEXTURE (12-36 inches) Sandy, Loamy, Clayey (Note 2-1 Clay)	S PS (U) 2-1 Clay	S PS U	S PS U	S PS U
3. SOIL STRUCTURE (12-36 inches)	S (PS) Blocky U	S PS U	S PS U	S PS U
4. SOIL DEPTH (inches)	S (PS) 36-40" U	S PS U	S PS U	S PS U
5. RESTRICTIVE HORIZONS (Inches) (Impervious strata, Rock)	S (PS) Saprolite 36"+ U	S PS U	S PS U	S PS U
6. SOIL DRAINAGE/GROUNDWATER (external and internal)	S Perched Water Table PS (U) 20-30" U	S PS U	S PS U	S PS U
7. OTHER (Specify)	S PS U	S PS U	S PS U	S PS U
8. SOIL GROUP	IVB			
9. SITE CLASSIFICATION	unsuitable			
10. SOIL SERIES	Helena-Lilly			

S - Suitable PS - Provisionally Suitable U - Unsuitable

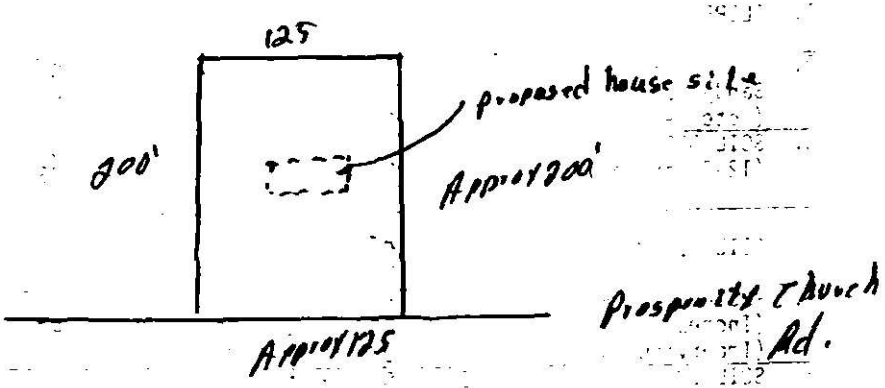
**See Diagram on Back (includes: soil areas, property lines, roads, streams, gullies, wet areas, fill areas, wells, water bodies, slopes)

Recommendations/Comments:

Described by: William A. Mayhew
Title: Soil Scientist
Date: 6-9-83

EHD 539 (Revised: 6/82)

2


125
proposed house site
200'
Approx 200'
Prosperity Church Rd.
Approx 125

SR-19717

Date Received 8-17-83

MECK COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH
RECEIVED
AUG 17 1983
ENVIRONMENTAL HEALTH

ICAR (S) Application No. 19717

T. C. No. P0027-05201

Map Date _____

MECKLENBURG COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH

Application for an
Installation, Construction, Alteration, and/or Repair Permit
(Individual Septic Tank System with Subsurface, Soil Absorption, Effluent Discharge)

The owner of that property described hereinafter hereby applies to the Mecklenburg County Department of Environmental Health for a permit to:

1) X Install or Construct 2) _____ Alter or Repair an individual septic tank wastewater treatment system with a subsurface, soil absorption, effluent discharge.

Mobile Home ____ Yes ____ No
Residence X Yes ____ No

4) No. of Bedrooms 3
5) Business Use — Max (No)
Employees _____
6) Washing Machine ✓ Yes ____ No
7) Garbage Disposal ✓ Yes ____ No
8) Dishwasher ✓ Yes ____ No
9) Water Supply:
A) Individual Well ✓
B) Governmental System _____
C) Community System:
1. Well source _____
2 Governmental source _____
10) Sewage System:
House located within 200 feet of public sewer ____ Yes ✓ No
House located within 200 feet of community sewer ____ Yes ✓ No
11) FHA Case No N/A
12) VA Case No. N/A

(See attached)

3) PLOT PLAN (ACCURATELY DIMENSIONED)

13) NAME OF OWNER Frye (LAST) John (FIRST) Mack (MIDDLE)

14) ADDRESS OF OWNER 513 W Chestnut St. Ext. Stanley NC 28164

15) PHONE NO. Home _____ Office 373-8332 (DPC.)

16) LOCATION OF SYSTEM 3231 Prosperity Church Rd (STREET OR COUNTY ROAD)

17) SUBDIVISION _____ Lot No. _____ Block No. _____

Map Book No. _____ Page No. _____

18) DEED REFERENCE — DEED BOOK 4677 AT PAGE 0968

19) HAS A SOIL INVESTIGATION BEEN RUN? ✓ YES ____ NO DATE RUN 6-9-83

20) PTR NUMBER (See Instructions) _____

The undersigned person hereby agrees that he has read the foregoing application and that the contents of same are true. It is understood that any permit applied for herein shall be void and of no effect if any of the above facts are not true.

3 Aug. 83
DATE OF APPLICATION

John Mack Frye
OWNER

EHD-S-76

ENVIRONMENTAL HEALTH DEPARTMENT'S COPY

STATE OF NORTH CAROLINA
COUNTY OF MECKLENBURG

COPY

SEPTIC TANK AGREEMENT

The undersigned, John M. Frye, owner of property located at 3231 Prosperity Church Rd., ("the site") and described in instrument recorded in Book 4677 at Page 0968, Mecklenburg Public Registry, hereby acknowledges that he applied to the Department of Environmental Health for a permit to install a septic tank sewage disposal system on the site; the Department evaluated the site for suitability for such a system in accord with the regulations promulgated by the North Carolina Commission for Health Services as 10 NCAC 10A .1900 et seq; that the Department classified the site as unsuitable and an appropriate permit was issued by the Department.

The undersigned further acknowledges that the proper design, construction, and maintenance of such septic tank system is his responsibility and that neither the Department nor its officials, employees or agents warrant or guarantee that the said system installed pursuant to the permit issued by the Department will function in a satisfactory manner for any given period of time or that the Department, its officials, employees or agents assume any liability for damages, consequential or direct, which are caused, or which may be caused by a malfunction of such system.

This document shall be placed on the public records of the Register of Deeds of Mecklenburg County and indexed therein under the Grantor Index in the name or names of the undersigned, and the foregoing acknowledgements shall henceforth be binding on all persons claiming any right, title, or interest in the site.

And the undersigned further agrees for himself, his heirs and assigns that he shall indemnify and hold harmless the Department and its successors, as well as Mecklenburg County, for any damages or other claims of any person or persons whatsoever arising out of the installation operation, or failure of said septic tank system.

And the undersigned further agrees for his heirs and assigns that, in the event any septic tank system installed under authority of the aforesaid permit fails to perform adequately, in any respect, he will take whatever measures are required to correct same; or if such is impossible he will discontinue use of said system immediately.

Use of the singular masculine pronoun forms herein shall be deemed to also include the plural and feminine forms as the context may require.

This 3rd day August, 1983.

(Seal)
(Seal)

PRESENTED FOR REGISTRATION 10 30 AM 1983 CHOWSER REGISTER OF DEEDS MECKLENBURG CO. N.C.

STATE OF NORTH CAROLINA
COUNTY OF MECKLENBURG

I, Eolia Lee Hood, a Notary Public for said County and State, do hereby certify that John M. Frye personally appeared before me this date and acknowledged the due execution of the foregoing instrument.

WITNESS my hand and notarial seal, this 3 day of August, 1983

Eolia Lee L. Hood
Notary Public
My Commission Expires Sept. 24, 1985

STATE OF NORTH CAROLINA
COUNTY OF MECKLENBURG

I, _____, a Notary Public for said County and State, do hereby certify that _____ personally came before me this day and acknowledged that he is _____ of _____, and that by authority duly given and as the act and deed of said corporation, the foregoing instrument was signed in its name by its _____, sealed with its corporate seal and attested by _____.

WITNESS my hand and notarial seal, this _____ day of _____, 19___.

Notary Public
My Commission Expires:

BASIS OF DESIGN

I.	**Facility Description**	
	Type	Single Family Residence
	Number of Bedrooms	Three
	Waste	Sanitary plus washer
	Location	3231 Prosperity Church Road
II.	**Estimated Flow**	
	Per Bedroom Allowance	120 gpd
	Design Average Daily Flow	360 gpd
III.	**System Components**	
	Septic Tank	Standard 1500 gal. precast tank
	Pump Tank	1500 gallon tank - no baffle
	Pumps	
	Number	Two
	Type	Submersible
	Size	See Pump Selection
	Controls	Duplex Float Controls with Timer Override and Low Level Cutoff - High Water Alarm
	Low Pressure Drainfield	
	Number Fields	Two
	Details	See Drainfield Calculations
IV.	**Washing Machine Field (separate)**	
	Components	Distribution Box and 2 - 100' Drain Lines
V.	**Drainfield Design Basis**	
	Type	Low Pressure (2-4' Head)
	Design Loading Rate	0.15 gpd/sf
	Design Flow	360 gpd
	Total Area Required	2400 sf in use 2400 sf in reserve
	Number of Fields	Two
	Line Length each Field	240 lineal feet
	Total Line Length	480 lineal feet
	Pipe Diameter	1¼"

BE 8-17-83

SIR No. 19717

Serial No. 6682

Date Issued 8-17-83

T. C. No. PO 027-052-01

Map Date

MECKLENBURG COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH

TO THE BUILDING INSPECTION DEPARTMENT

APPROVAL OF LOT FOR INSTALLATION OF AN INDIVIDUAL SEPTIC TANK WITH SUBSURFACE, SOIL ABSORPTION, EFFLUENT DISCHARGE

NAME OF OWNER Frye, (LAST) John (FIRST) Hack (MIDDLE)

ADDRESS OF OWNER 512 W. Chestnut St., Ext., Stanley, NC ZIP 28164

LOCATION OF LOT 3231 Prosperity Church Road (STREET OR COUNTY ROAD)

SUBDIVISION _____ LOT NO._____ BLOCK NO._____

MAP BOOK NO._____ PAGE NO._____

The above specified lot is approved by the Mecklenburg County Department of Environmental Health for the installation of an individual septic tank system with subsurface, soil absorption, effluent discharge based on the soil investigation, on an on-site inspection of the said lot; and upon the information supplied in the "Application for an Installation, Construction, Alteration, and/or Repair Permit", number 19717. This approval is subject to the following terms and conditions:

1. That the nitrification field be installed, constructed, altered and/or repaired in the same area where the soil investigation was run.
2. That an "Installation, Construction, Alteration, and/or Repair Permit" be issued and in full force and effect when the system is installed, constructed, altered, and/or repaired and that the system be installed in accordance with same.

This approval may be revoked and the building inspection department requested to revoke any building permit(s) which have been issued to authorize construction on the said lot if at any time it is determined that any information contained in the "Application for an Installation, Construction, Alteration, and/or Repair Permit" is not correct or is untrue or that the septic-tank system is not being installed, constructed, altered and/or repaired in accordance with a valid Installation, Construction, Alteration, and/or Repair Permit.

*** AGREEMENT FORM ON FILE ***

Environmentalist

Eric D. Anderson, Jr.
Environmental Health Director, or Authorized Section Head

EHD-5-76

Environmental Health Department's Copy

Date Issued Feb 6th 1984

Serial No. 6940

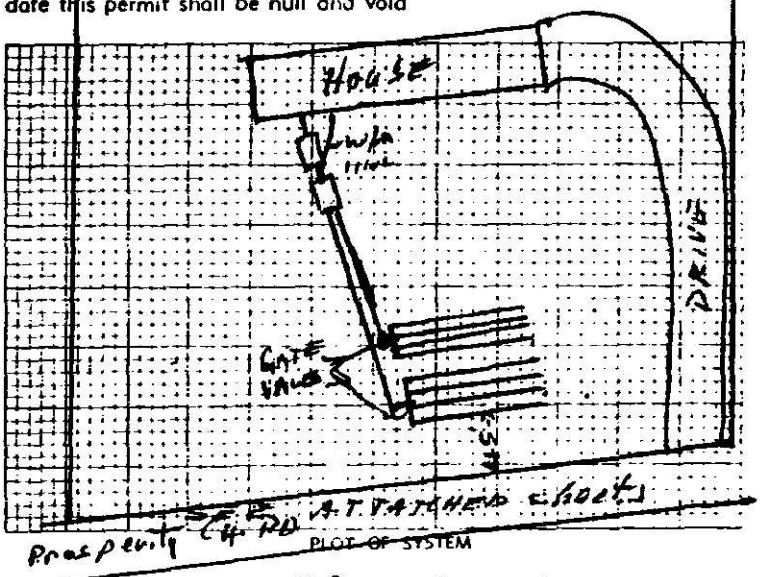
ICAR(S) Permit No. 19717

T. C. No. 027-052-01

Map Date

MECKLENBURG COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH
INSTALLATION, CONSTUCTION, ALTERATION, AND/OR REPAIR PERMIT
(Individual Septic Tank System with Subsurface, Soil Absorption, Effluent Discharge)

Permission is hereby given to X Install or Construct, ___ Alter or Repair the individual septic tank wastewater treatment system with subsurface, soil absorption, effluent discharge as specified herein at the described location. This permit is granted based upon the information supplied in application 19717, dated Aug 3rd 1983 and this permit shall be void and of no effect if the information provided in the application is not true or is erroneous. All work shall be completed on or before FEB 6th 1984, after which date this permit shall be null and void



Permeability Rate 4 IVB

Liquid Capacity of Tank 1500 Gals. 1500 S.T.

Tank Construction Pre Cast Concrete

Absorption and or Nitrification Lines

Total Line Length 480 Lin. FT

Number of Lines Two Fifty-Four lines each

Distance from House 100 FT

Distance from Property Line 15 FT

Distance from Well 125 FT

NAME OF OWNER FRYE, JOHN

LOCATION OF PROPERTY 3231 PROSPERITY CHURCH RD.

The system shall meet all of the construction requirements as set forth in the Regulations of the Mecklenburg County Health Commission which are in effect on the date of the granting of this permit. A certificate of approval must be issued by the Environmental Health Director before any system can be covered up or otherwise rendered uninspectable or can be used. The issuance of this permit does not in any way guarantee that the system anticipated to be constructed will operate properly or relieve any person now or hereafter owning, controlling or using such system from any liability resulting from the failure of the system to operate properly.

Plumb w/in line into Lift Station

Comments: Low Pressure Pipe System.
See attached (4) sheets

R. Henkel
Division or Section Head

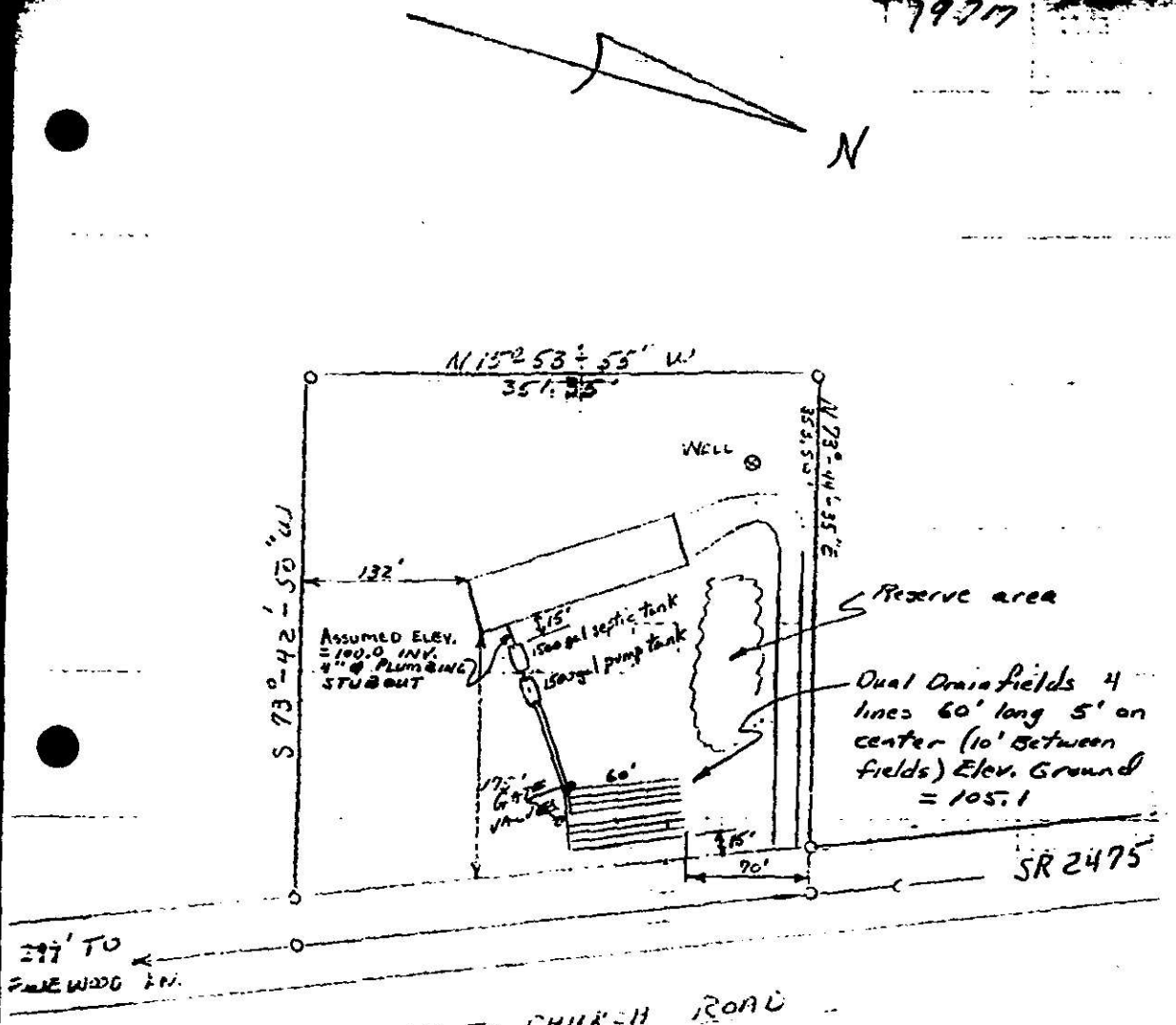
Ralph Miller
Environmentalist

* If this permit is for the installation or construction of a new system, it must be signed by the division or a section head of the Department of Environmental Health in order to be valid. Only the signature of the Environmentalist is required where an existing system is being altered or repaired.

EHD-5-76

ENVIRONMENTAL HEALTH DEPARTMENT'S COPY

79-77



SITE PLAN

1" = 100'

PROPERTY OF JOHN FRYE

Appendix 1. Design specifications for example LPP (Chapters 3 and 4)

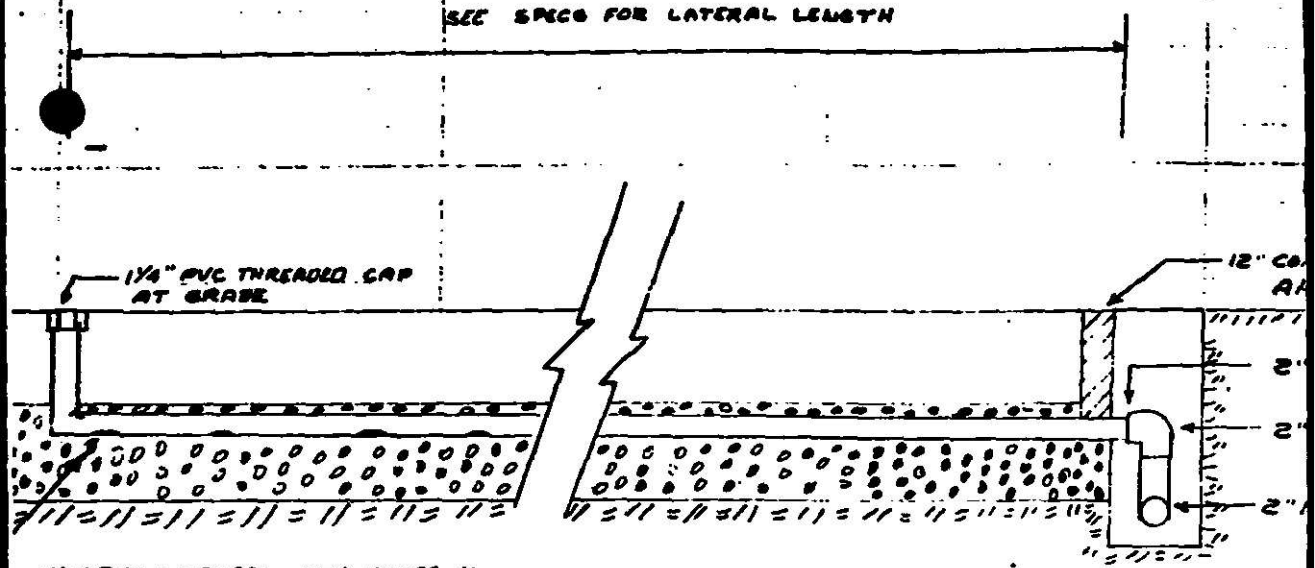
File a copy of this sheet along with an accurate sketch for each LPP designed.

Daily waste flow 360 gal
Septic tank size 1500 gal
Pumping tank size 1500 gal
Effluent loading rate .15 gal/sq ft
Absorption area 2400 sq ft
Total length of laterals 480
Lateral diameter 1 1/4"
Lateral configuration 1
Supply line length 80'
Supply line diameter 1 1/2"
Manifold placement SIDE
Hole size* 5/32"
Hole spacing 5' 6" 30" SPACING FROM ENDS
Number of holes 88
Pressure head 4 FT.
Flow per hole .58 gpm
* Total flow 25.52 gpm / PUMP 4 FOUR LATERAL DRAINFIELD
Elevation head 8 FT.
Friction head 2 6 FT 3"
Pressure head 4 FT
Total head 14.6 FT
Pump requirements 26 gpm @ 15' TDH
Storage volume in laterals (21.6 gal / field)
Storage volume in supply line 7.4 gal
Total storage volume (29 gal / field)
Dosing volume 1500 gal
Dosing depth 6"
Check valve needed? NO

*Data on hole size, spacing, pressure head and flow must be listed for each line for systems where lines are different (such as sloping lots).

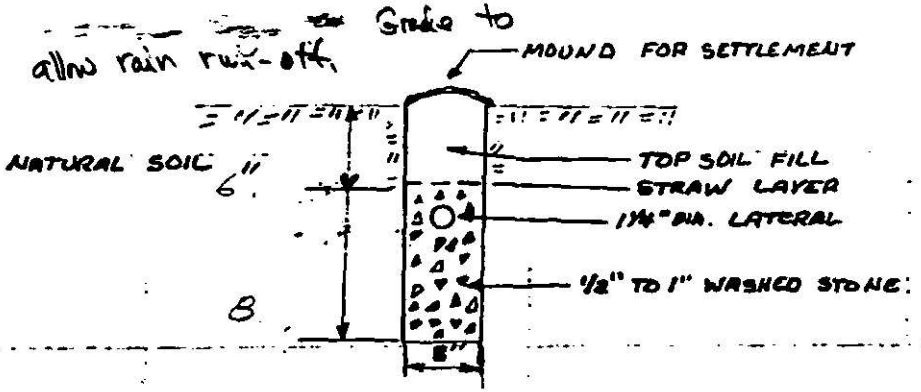
* NOTE SYSTEM TO USE DUAL ALTERNATING .4 hp effluent pumps KEEP SUPPLY MANIFOLD LOWER THAN LATERALS & SEPARATE TRENCHES WITH UNDISTURBED SOIL DAMS.
USE 6" COVER WITH 8" #5 STONE - IN TRENCHES - hay or STRAW COVER. TRENCHES TO BE 6" WIDE.
USE THREADED STAND PIPES FOR REMOVAL AND PLUGGING AFTER SETTING

KEEP 5FT CENTERS ON LATERALS



SECTION THRU LATERAL

NO SCALE



TRENCH CROSS SECTION

NO SCALE

C of A (s) No. 19717 /

Date Issued 4-9-84 Serial 6534

T. C. No. 027-052-01 L CRT

MECKLENBURG COUNTY
DEPARTMENT OF ENVIRONMENTAL HEALTH

OPERATION PERMIT

CERTIFICATE OF APPROVAL

(Individual Septic Tank System with Subsurface, Soil Absorption, Effluent Discharge)

Name of Owner FRYE, JOHN (LAST, FIRST, MIDDLE)

Location of Property 3231 PROSPERITY CHURCH RD.

Application Number 19717 Permit Number 19717

Inspection Data: 1000 gal LS

Liquid Capacity of Tank 1500 gal S.T. Tank Material Pre Cast Concrete

Total Length of Drain Tile 480 LIN FT Number of Lines EIGHT

Depth of Filter Material 6 inches Cover Depth 8 inches

Water Supply Source Well Distance from Water Source 125 FT

Excavation Inspected 4-6-84 (DATE) Tank Inspected 4-6-84 (DATE)

Nitrification Field Inspected 4-6-84 (DATE)

Washing Machine Line Inspected, If Applicable — (DATE)

The undersigned has inspected the Individual Septic Tank System with subsurface, soil absorption, effluent discharge as described above and it has been X installed or constructed, ~~altered~~ or repaired in accordance with the permit issued and the regulations of the Mecklenburg County Health Commission in effect on the date of issuance of the permit. The issuance of this Certificate of Approval does not in any way guarantee that the system will operate properly or relieve any person now or hereafter owning, controlling, or using such system from any liability resulting from the failure of the system to operate properly. This Certificate of Approval is issued subject to those restrictions and conditions shown on the permit(s) in addition to those listed below under comments. This Certificate of Approval shall be null and void if any information contained in the application is untrue or if any additions are made to the property which would increase the requirements for said system.

Comments

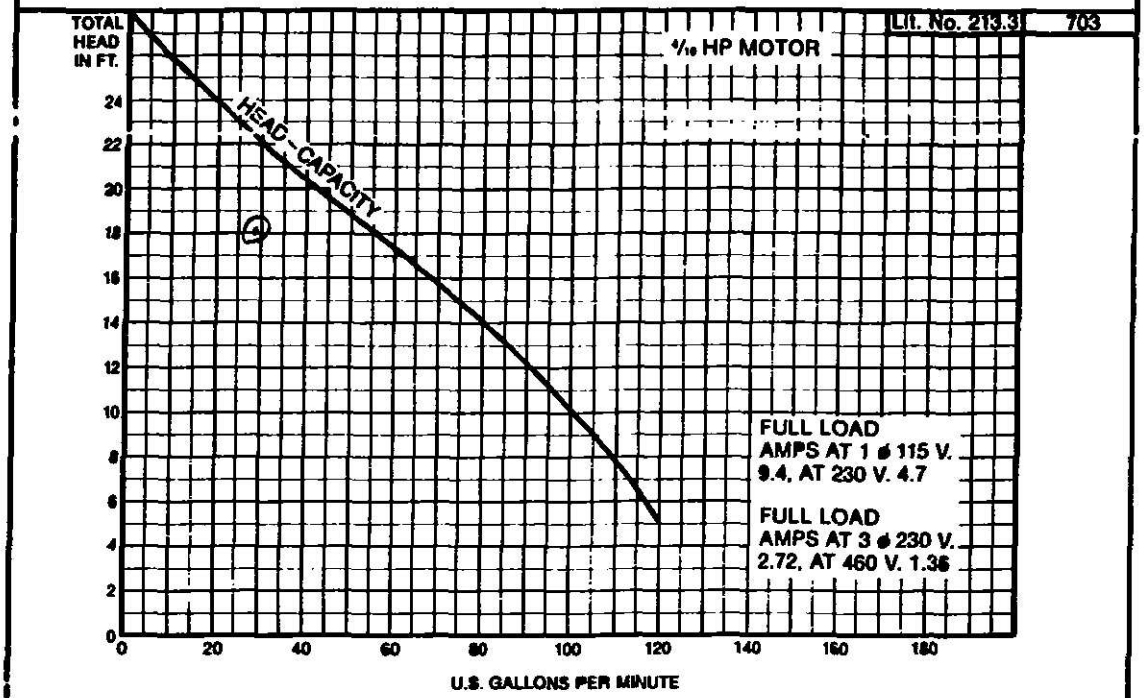
Ralph Nilles
Environmentalist

EHD-S-76

ENVIRONMENTAL HEALTH DEPARTMENT'S COPY

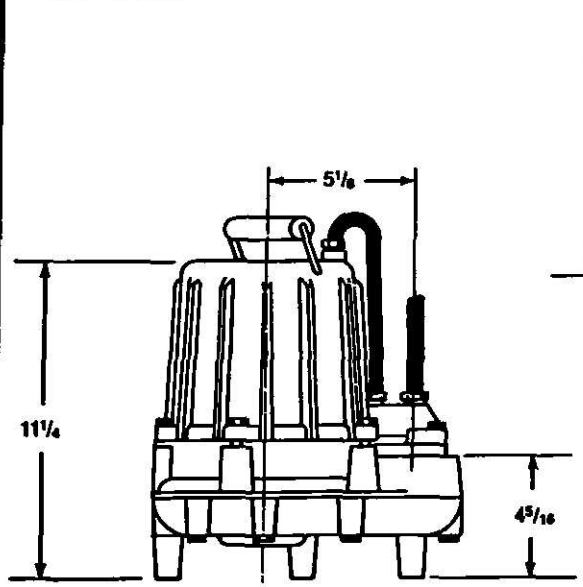
MODEL: SP40A SUBMERSIBLE SEWAGE PUMP — MAX. SOLIDS 1¼" SPHERE — 1750 RPM

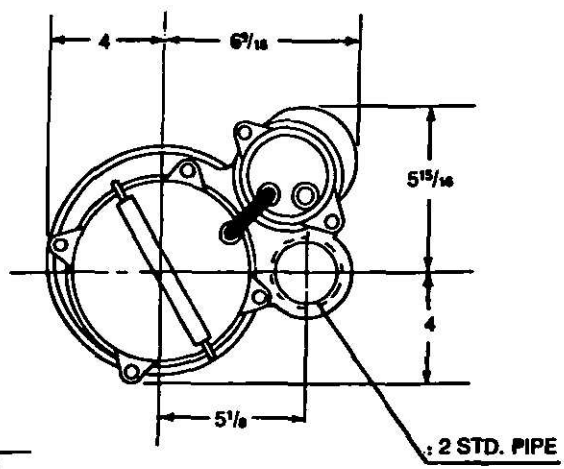
Lit. No. 213.3 703



492

MODEL: SP40A





NOTE: CASTING DIM. MAY VARY ± 1/8"

TABLE OF VALUES

ORIFICE FLOW RATE

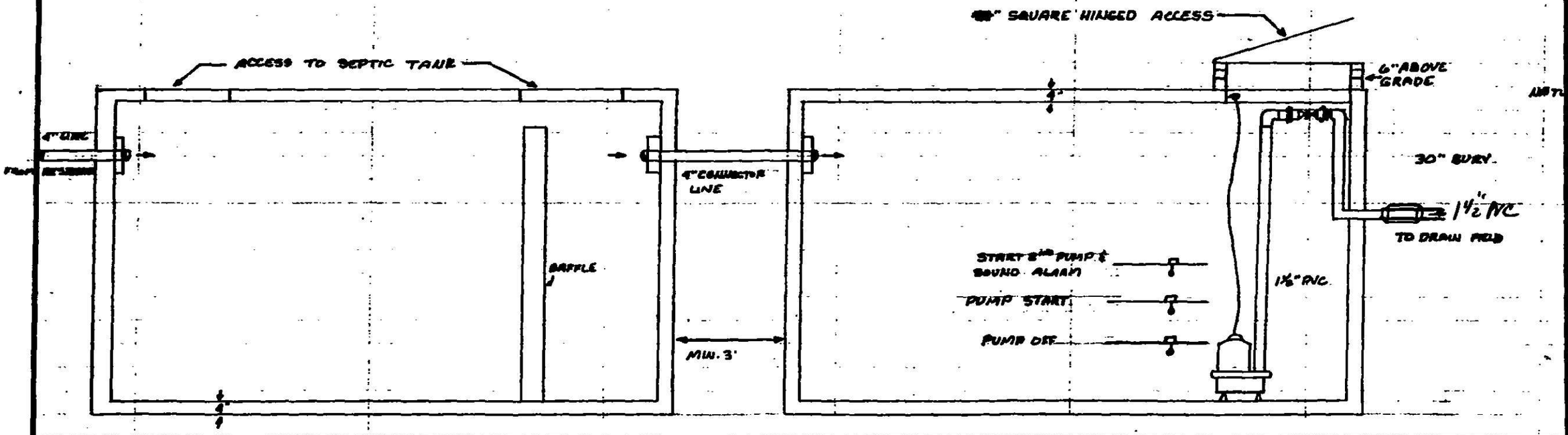
Residual Pressure	Hole Diameter			Values Of
	3/32"	1/8"	5/32"	$(h)^{1/2}$
5.31'	0.239	0.423	0.646	2.30
5.14'	0.235	0.417	0.637	2.267
5.00'	0.23	0.41	0.628	2.236
4.93'	0.23	0.408	0.624	2.22
4.75'	0.226	0.40	0.612	2.179
4.72'	0.226	0.40	0.611	2.173
4.52'	0.221	0.391	0.597	2.126
4.50'	0.220	0.39	0.596	2.121
4.30'	0.215	0.381	0.583	2.074
4.25'	0.214	0.379	0.579	2.061
4.07'	0.209	0.371	0.567	2.017
4.00'	0.208	0.368	0.562	2.00
3.84'	0.203	0.36	0.551	1.96
3.75'	0.201	0.356	0.544	1.936
3.64'	0.198	0.351	0.536	1.908
3.55'	0.196	0.346	0.529	1.884
3.50'	0.194	0.344	0.525	1.871
3.34'	0.190	0.336	0.514	1.828
3.25'	0.187	0.331	0.507	1.803
3.07'	0.182	0.322	0.492	1.752
3.00'	0.18	0.32	0.487	1.732

Formula $Q = 449CA\ (2gh)^{1/2}$

For 1/8 : $Q = 0.1838\ (h)^{1/2}$ $A = 0.000085$

For 3/32: $Q = 0.1038\ (h)^{1/2}$ $A = 0.000084$

For 5/32: $Q = 0.281\ (h)^{1/2}$ $A = 0.00013$



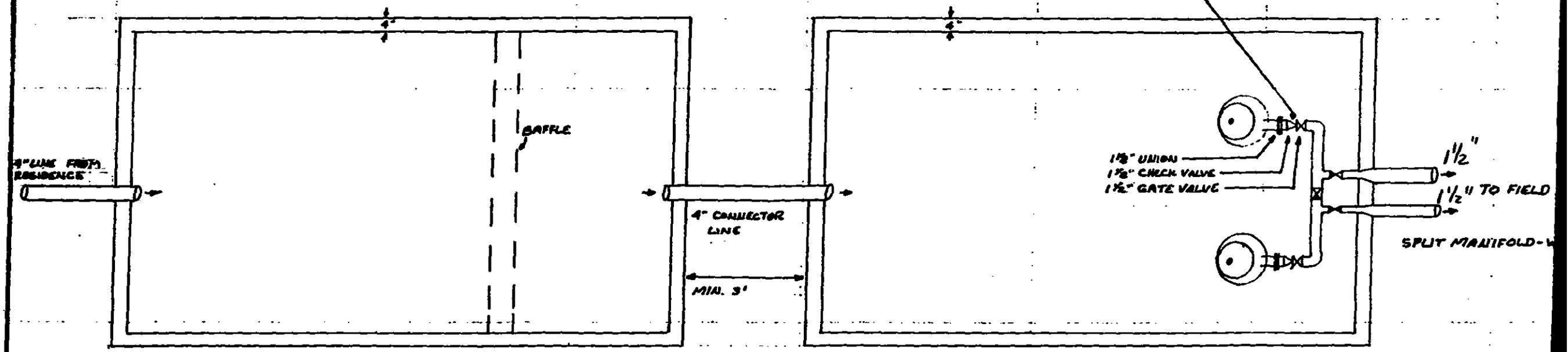
SEPTIC TANK - STD. 1500 GAL.

PUMP TANK - STD. 1500 GAL. (NO BAFFLE)

SEPTIC TANK AND PUMP TANK DETAIL - PROFILE

NO SCALE

NOTE:
A CHECK VALVE SHOULD ONLY BE USED IF THE TOTAL STORAGE VOLUME OF THE PIP IS GREATER THAN ¼ OF THE TOTAL DAILY WASTE FLOW.

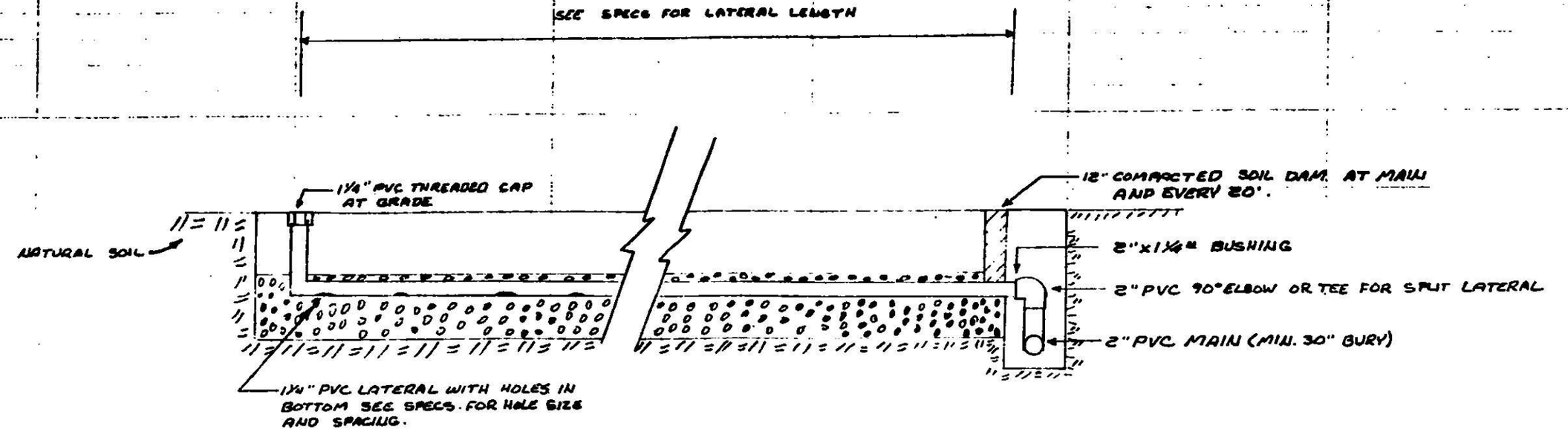


SEPTIC TANK – STD. 1500 GAL.

PUMP TANK – STD. 1300 GAL. (No BAFFLE)

SEPTIC TANK AND PUMP TANK DETAIL – PLAN

NO SCALE

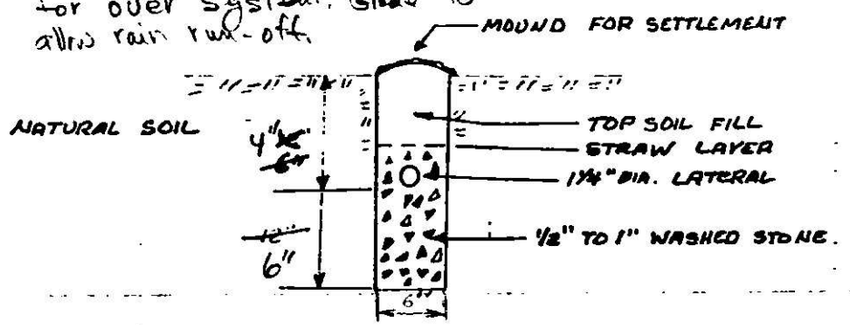


SECTION THRU LATERAL

NO SCALE

NOTE:
~~WHERE FALL ACROSS FIELD EXCEEDS 3'~~
~~USE SPLIT SUPPLY MANIFOLD.~~

Import additional 4" fill dirt for over system. Grade to allow rain run-off.



TRENCH CROSS SECTION

NO SCALE